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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,846	12/31/2001	Chen-Hsiang Shih	4425-237	5314

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EXAMINER

ROHWER, JACOB P

ART UNIT	PAPER NUMBER
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2625

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/029,846	SHIH ET AL.	
	Examiner	Art Unit	
	Jacob P. Rohwer	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9 Nov 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-11, 13 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-11, 13 and 15-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2/2/07
Claims 1-4, 5, 7-^{11, 13, 15, 21}~~8~~ and ~~16-20~~ are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No 6,144,772 to Garland et al, in view of US Patent Application Publication No 2002/0012126 to Nakamura, and further in view of US Patent No 6,646,765 to Barker et al.

Regarding claim 1, Garland discloses an apparatus comprising:

an image-processing component (**Fig 1 #102**) adapted to generate data to display (**Fig 1 #118, Fig 9**) a source image (**Col 8 Lin 42-49**), and further adapted (**Fig 1 #110 and #114**) to receive a selection of at least one sub-zone of the source image and a selection of one of a plurality of compression models for the at least one sub-zone, (**Col 2 Lin 16-17**) wherein selection of a sub-zone comprises designation of an arbitrary area of the source image, (**Fig 7 and 9, Col 4 Lin 27-32**) and wherein selection of a sub-zone further comprises designation of a compression model for the sub-zone, (**Fig 10 #1010 and #1012, Col 2 Lin 16-43, the user assigns a quality level to the sub-zone**) wherein the selected compression model defines at least one compression ratio (**Fig 10 #1020 and #1030, Scaling and Resolution Factor**) ~~and~~.

2/2/07

Garland does not expressly disclose an image-capturing component adapted to scan a document as to provide the source the image specified, and further adapted to process a scanned image in accordance with the received selection of at least one sub-zone and received selection of one of a plurality of compression models.

However, Nakamura discloses an image-capturing component (**Fig 1 and 2 #12**) adapted to preliminary scan a source image in order for that the document be analyzed, and further adapted to provide a final scan of the source image in accordance with the received selection of one of a plurality of compression models. (**Para [0017], Para [0067-0069]**)

At the time of the invention it would have been obvious to one of ordinary skill in the art to use the image capturing component in order to perform a preliminary scan and a final scan (of the selected sub-zones in Garland) using selected compression characteristics/ratios based on the preliminary scan as specified in Nakamura, in response to the display and the designation of sub-zones in which the user desires a certain image quality level as specified in Garland.

The suggestion/motivation for doing so would have been to analyze a source image and in response designate a compression characteristic/ratio in order to improve the image quality. (**Nakamura, Para [0015]**) The disclosure in Nakamura provides image improvement based on a preliminary scan being analyzed, processing parameters being selected, and then a final scan is carried out using the selected processing parameters.

Finally, the combination of Garland and Nakamura does not expressly disclose receiving an intermediary scan zone before the designation of the sub-zones, wherein the scanning zone comprises less than the entire preliminary scanned image.

However, Barker discloses a common technique that selects a scanning zone of a preliminary scanned image, wherein the scanning zone comprises less than the entire preliminary scanned image. **(Col 1 Lin 59-67)**

At the time of the invention it would have been obvious to one of ordinary skill in the art to select a scanning zone comprising less than the entire preliminary scanned image as specified in Barker, before designating a sub-zone of the scan as specified in the combination of Garland and Nakamura.

The suggestion/motivation for doing so would have been to reduce the data set size by making the scanned region smaller while also allowing a user to focus on the region of interest within a scanned image. **(Barker, Col 1 Lin 59-60)**

Therefore, it would have been obvious to combine Garland, Nakamura and Barker in order to obtain the invention as specified in claim 1.

Regarding claim 2, which depends from claim 1, the combination further discloses in Garland the apparatus of claim 1, wherein said image-processing component is further adapted to receive a selection of at least one sub-zone based at least in part on a request from an exterior device. **(Fig 1 #110 and #114)**

Regarding claim 3, which depends from claim 1, the combination further discloses in Nakamura the apparatus of claim 1 wherein said apparatus comprises a scanner. **(Fig 1 and 2 #12)**

Regarding claim 4, which depends from claim 3, the combination further discloses in Garland the apparatus of claim 3, wherein said compression model defines differing compression configurations for at least two portions of the scanned document image. **(Fig 9 discloses three portions)**

Regarding claim 5, please see rejection of claim 1 above, all the limitations of the system specified in claim 5 are taught by the combination of Garland, Nakamura and Barker as specified in the rejection of claim 1.

Regarding claim 7, which depends from claim 5, the combination further discloses in Nakamura the system of claim 5, wherein said scanning system comprises a plurality of photo sensors. **(Fig 1 #12, Para [0046])**

Regarding claim 8, which depends from claim 5, the combination further discloses in Nakamura the system of claim 5, wherein said processing is further configured to output said captured document image to an external device. **(Fig 1 and 2 #16)**

Regarding claim 9, please see rejection of claim 1 above. Additionally the combination discloses in Nakamura, performing a chrominance and luminance analysis of the scanned data, and converting the scanned data based on selected parameters in response to the chrominance and luminance analysis. **(Fig 3, Para [0080-0086])**

Regarding claim 10, the combination further discloses in Garland the method of claim 9 comprising receiving user selection of a user-selectable sub-zone by use of an editing tool. **(Fig 1 #110 and #114)**

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Regarding claim 11, the combination further discloses in Nakamura the method of claim 9, wherein said pre-scanning is implemented by a plurality of optic devices. **(Fig 1 #32)**

Regarding claim 13, the combination further discloses in Garland the method of claim 9 comprising displaying said plurality of user-selectable sub-zones on a display device. **(Fig 7)**

Regarding claim 15, the combination further discloses in Garland the method of claim 9, wherein said plurality of compression ratios comprise lossy and lossless compression ratios. **(Col 2 Lin 16-17)**

Regarding claims 16-20, please see rejections of claims 1, 2, 5 and 8 above.

Regarding claim 21, the combination further discloses in Garland the apparatus of claim 16, wherein means for selecting at least one sub-zone comprises means for selecting a combination of lossy and lossless compression ratios for the at least one sub-zone. **(Col 2 Lin 16-17)**

Response to Arguments

Applicant's arguments, see pages 6-7, filed 9 Nov 2006, with respect to the 112 rejection have been fully considered and are persuasive. The 112 rejection has been withdrawn.

Applicant's arguments with respect to claims 1-5, 7-11, 13 and 15-21 have been considered but are moot in view of the new ground(s) of rejection.

Examiner reminds applicant that due to the fact that new cited references are provided in the rejection above, this action is made non-final.

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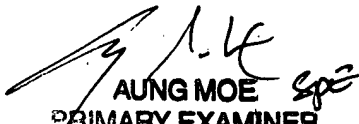
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob P. Rohwer whose telephone number is 571-272-5509. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on 571-272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

1/27/07
RR


AUNG MOE
PRIMARY EXAMINER